

28. **(Reiterated)** A nucleic acid encoding a chimeric polypeptide comprising serum albumin protein (SA) having a biologically active heterologous peptide sequence inserted into at least one region selected from residues 360-369 and residues 450-463, optionally replacing one or more residues of the region into which it is inserted.
29. **(Reiterated)** A delivery vector comprising the nucleic acid of claim 28, 49, or 50.
30. **(Reiterated)** The delivery vector of claim 29, wherein said delivery vector comprises a virus or retrovirus.
31. **(Reiterated)** The delivery vector of claim 30, wherein said virus or retrovirus is selected from adenoviruses, adeno-associated viruses, herpes simplex viruses, human immunodeficiency viruses, or vaccinia viruses.
32. **(Reiterated)** Transfected cells comprising target cells which have been exposed to the delivery vector of claim 29.
33. **(Reiterated)** The transfected cells of claim 32, wherein the cells are selected from blood cells, skeletal muscle cells, stem cells, skin cells, liver cells, secretory gland cells, hematopoietic cells, or marrow cells.
34. **(Reiterated)** A pharmaceutical preparation comprising a pharmaceutically acceptable excipient and the chimeric polypeptide encoded by the nucleic acid of claim 28, 49, or 50.
49. **(Reiterated)** A nucleic acid encoding a chimeric polypeptide having the structure A-B-C, wherein:
- A represents an N-terminal peptide fragment of serum albumin (SA) terminating in an amino acid corresponding to one of residues 359-368;
  - B represents a biologically active heterologous peptide sequence; and,
  - C represents a C-terminal peptide fragment of SA beginning from an amino acid corresponding to one of residues 361-370;
- wherein A and C do not include overlapping portions of the regions 360-369 and 450-463.

50. **(Reiterated)** A nucleic acid encoding a chimeric polypeptide having the structure A-B-C, wherein:
- A represents an N-terminal peptide fragment of serum albumin (SA) terminating in an amino acid corresponding to one of residues 449-462;
- B represents a biologically active heterologous peptide sequence; and,
- C represents a C-terminal peptide fragment of SA beginning from an amino acid corresponding to one of residues 451-464;
- wherein A and C do not include overlapping portions of the regions 360-369 and 450-463.
51. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the heterologous peptide sequence comprises a fragment of an angiogenesis-inhibiting protein or polypeptide.
52. **(Reiterated)** The nucleic acid of claim 51, wherein said angiogenesis-inhibiting protein or polypeptide is selected from angiostatin, endostatin, and peptide fragments thereof.
53. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the heterologous peptide sequence binds to a cell surface receptor protein.
54. **(Reiterated)** The nucleic acid of claim 53, wherein the receptor protein is a G-protein coupled receptor.
55. **(Reiterated)** The nucleic acid of claim 53, wherein the receptor protein is a tyrosine kinase receptor.
56. **(Reiterated)** The nucleic acid of claim 53, wherein the receptor protein is a cytokine receptor.
57. **(Reiterated)** The nucleic acid of claim 53, wherein the receptor protein is a MIRR receptor.
58. **(Reiterated)** The nucleic acid of claim 53, wherein the receptor protein is an orphan receptor.
59. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the chimeric polypeptide binds to an extracellular receptor or an ion channel.

60. **(Reiterated)** The nucleic acid of claim 59, wherein the chimeric polypeptide is an agonist of said receptor or ion channel.
61. **(Reiterated)** The nucleic acid of claim 59, wherein the chimeric polypeptide is an antagonist of said receptor or ion channel.
62. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the chimeric polypeptide induces apoptosis.
63. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the chimeric polypeptide modulates cell proliferation.
64. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the chimeric polypeptide modulates differentiation of cell types.
65. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the heterologous peptide sequence comprises between 4 and 400 residues.
66. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the heterologous peptide sequence comprises between 4 and 200 residues.
67. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the heterologous peptide sequence comprises between 4 and 100 residues.
68. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the heterologous peptide sequence comprises between 4 and 20 residues.
69. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the tertiary structure of the chimeric polypeptide is similar to the tertiary structure of native SA.
70. **(Reiterated)** The nucleic acid of claim 28, wherein the inserted peptide sequence replaces a portion of native SA sequence.
71. **(Reiterated)** The nucleic acid of claim 70, wherein the inserted peptide sequence and the replaced portion of native SA sequence are of unequal length.

72. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the half-life of the polypeptide in the blood is no less than 14 days.
73. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the half-life of the polypeptide in the blood is no less than 10 days.
74. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the half-life of the polypeptide in the blood is no less than 50% of the half-life of native SA.
75. **(Reiterated)** A nucleic acid encoding a chimeric polypeptide comprising serum albumin (SA) having at least two biologically active heterologous peptide sequences inserted therein, wherein at least one biologically active heterologous peptide sequence is inserted (i) between an N-terminal SA sequence ending in one of residues 359-368 and a C-terminal SA sequence beginning from one of residues 361-370; or (ii) between an N-terminal SA sequence ending in one of residues 449-462 and a C-terminal SA sequence beginning from one of residues 451-464; wherein the N- and C-terminal sequences do not include overlapping portions of the regions 360-369 and 450-463.
76. **(Reiterated)** The nucleic acid of claim 75, wherein the heterologous peptide sequences are identical.
77. **(Reiterated)** The nucleic acid of claim 75, wherein the heterologous peptide sequences comprise distinct sequences of a protein.
78. **(Reiterated)** The nucleic acid of claim 75, wherein the heterologous peptide sequences comprise sequences from at least two different proteins.
79. **(Reiterated)** The nucleic acid of claim 28, 49 or 50, wherein the biologically active heterologous peptide is the myc epitope or the RGD peptide.

#### **REMARKS**

Claims 1-79 constitute the pending claims in the present application. Among them, claims 1-27, and 35-48 are directed to non-elected inventions and are withdrawn from further consideration. Applicants will cancel these claims upon indication of allowable subject matter.